Brachiobasilic versus brachiocephalic arteriovenous fistula: A randomized prospective study

This manuscript describes construction and maintenance of hemodialysis access. The initial construction of either a brachial cephalic arteriovenous autogenous access (BCAVF) or a radiocephalic arteriovenous autogenous access is similarly reported by the CPT code 36821. Officially, the description reads "arteriovenous anastomosis, open; direct, any site." Therefore, one CPT code describes the placement of all possible direct arteriovenous (AV) autogenous accesses in the forearm, upper arm, or leg.

Another procedure detailed in this publication is autogenous brachial-basilic upper arm transpositions (BVT). This is typically reported by CPT code 36819 (arteriovenous anastomosis, open; by upper arm basilic vein transposition). There are three transposition codes for arteriovenous access in all. Besides the BVT, one covers all possible forearm constructions (36820 arteriovenous anastomosis, open; by forearm vein transposition) and the other describes mobilization and tunneling of the upper arm cephalic vein (36818 arteriovenous anastomosis, open; by upper arm cephalic vein). This last code is used to report a procedure in which the cephalic vein at the elbow region is mobilized through a separate incision, placed in a tunnel, and anastomosed to the brachial artery, which is dissected through a separate incision.

Secondary procedures were required in follow-up. Open revision of the AV access to maintain patency, excise an aneurysm, or bypass a stenosis is reported by CPT code 36832 (revision, open, arteriovenous fistula; without thrombectomy, autogenous or nonautogenous). If the revision is accompanied by a thrombectomy in the same setting, CPT code 36833 is more appropriate (revision, open, arteriovenous fistula; with thrombectomy, autogenous or nonautogenous dialysis graft).

Some practices prefer an endovascular approach to occluded AV fistulae and grafts. Component coding rules apply for the use of catheters, imaging, and intervention. Imaging of the AV access can be done by ultrasound (CPT code 93990) or by contrast angiography (CPT code 75790), which includes imaging from the arterial anastomosis through the superior vena cava. Percutaneous mechanical thrombectomy as well as thrombolysis of an AV access is reported by the 90-day global code 36870 (thrombectomy, percutaneous, arteriovenous fistula, autogenous or nonautogenous graft [includes mechanical thrombus extraction and intra-graft thrombolysis]). AV access stenosis or occlusions may be opened with angioplasty on the arterial side (G0392 angioplasty of an AV access, arterial side combined with 75962 for radiology supervision and interpretation) or on the venous side (G0393 angioplasty of an AV access, venous side combined with 75978 for radiology supervision and interpretation). Keep in mind that the graft is considered one continuous circuit from the arterial anastomosis to the axillary vein for angioplasty billing purposes. Lastly, catheterization of an AV access is described by CPT code 36145 (Introduction of needle or intracatheter; arteriovenous shunt created for dialysis [cannula, fistula, or graft]). During AV access intervention, two catheters may be required with each placed in the opposite direction. In this situation, 36145 is reported twice.

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